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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,380	04/21/2005	Claus Bischoff	10191/3897	1743

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EXAMINER	
VANAMAN, FRANK BENNETT	
ART UNIT	PAPER NUMBER
3618	

DATE MAILED: 11/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/532,380	BISCHOFF ET AL.	
	Examiner	Art Unit	
	Frank Vanaman	3618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 12-22 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 12-22 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 4/21/05.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Status of Application

1. Applicant's preliminary amendment, filed with the application has been entered in the application. Claims 12-22 are pending, with claims 1-11 having been canceled/

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

3. The disclosure is objected to because of the following informality: on page 4, line 27, it appears as though either (a) the reference to figure 1 and the axis M_{Awl} should instead be to M_{Anl} or (b) the reference to M_{Anl} in figure 1 should be changed to show M_{Awl} for consistency with the specification.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. Claims 12-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 12, 13, and 16, the use of "appropriate" renders the recitations unclear in that it is not clear what particular characteristic or relationship associated with the term "appropriate" is to be applied to the characteristic map (i.e., appropriate in what way?); in claim 14, line 4, the recitation of characteristic being "taken into consideration" is confusing in that it is not clear what particular process is associated with a taking into consideration; in claim 16, lines 2-3 it is not clear what a basis of a power stage is; in claim 20, line 1, the recitation of a second degree of freedom is somewhat confusing in that the claim depends from claim 12, which, while reciting kinematic and dynamic degrees of freedom, does not recite a 'first' degree of freedom.

5. As regards claims currently rejected under 35 USC §112, second paragraph, please note that rejections under 35 USC §102 and 103 should not be based upon considerable speculation as to the meaning of the terms employed and assumptions as to the scope of the claims when the claims are not definite. See In re Steele 305 F.2d 859, 862, 134 USPQ 292, 295 (CCPA 1962). When no reasonably definite meaning can

be ascribed to certain terms in a claim, the subject matter does not become anticipated or obvious, but rather the claim becomes indefinite. See In re Wilson 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). As such the currently pending claims may be subject to prior art rejections not set forth herein upon the clarification of the claim language.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 12, 13, 18, 19, 21 and 22, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Hara et al. (US 5,713,814). Hara teaches a control system for a motor vehicle having a hybrid configuration including an engine (1) and motor/generator (5) as well as a transmission (4) for driving vehicle wheels (19), including a controller (10) which controls the operation of the vehicle including the engine, battery (7), motor/generator, and transmission, and monitors an engine speed (11), vehicle speed (14), motor generator speed (15) and battery state of charge (17), wherein battery state of charge, understood to be inversely proportional to the power required by the battery is employed to select amongst a plurality of "appropriate" character (e.g., figures 14, 15, 16), each of which relate kinematic and dynamic degrees of freedom to operational configuration of the vehicle including at least a speed and a setpoint throttle position.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claim 20, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Hara et al. (cited above). The reference to Hara et al. is discussed above and while teaching a setpoint throttle position, fails to explicitly teach a setpoint torque. It is very wheel known in the vehicle arts that a desired torque is set by either a throttle position or a braking control position, and as such, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a setpoint torque in the engine/motor control map in order to tailor the operation of the vehicle to accommodate braking conditions (i.e., when a throttle opening would expectedly be at zero) as well as speed increase and/or maintenance conditions.

10. Claims 14-17, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Hara et al. in view of Yoshino et al. (EP 1,142,749, cited by applicant). The reference to Hara et al. is discussed above and fails to teach the use of the electrical power required by consumers on the vehicle as governing the choice of characteristic map. The examiner notes that indirectly, any consumer requiring power from the battery will affect the battery state of charge, and as it is very common for a vehicle to have at least one on-board consumer (e.g., radio, light, wiper motor, etc.) it is initially well known that the use of a consumer will have an effect on the battery condition. Further Yoshino teaches that it is well known to additionally take into consideration the on-board loads (paragraph 0052, value tTg) in determining an overall power requirement in the management of an electrical system of a hybrid vehicle. As such, it would have been obvious to one of ordinary skill in the art at the time of the invention to explicitly take into consideration the value of on-board power loads for the vehicle in determining an operational mode for the purpose of anticipating load

conditions prior to a measurable change in battery state of charge, thus promoting a more responsive control system.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kawakatsu (US 4,335,429), Kawai et al. (US 5,176,213), Kuang (US 5,264,764), Suzuki et al. (US 6,595,895), and Takaoka et al. (US 6,787,982 and 6,867,509) teach vehicle control systems of pertinence.

12. Any inquiry specifically concerning this communication or earlier communications from the examiner should be directed to F. Vanaman whose telephone number is 571-272-6701.

Any inquiries of a general nature or relating to the status of this application may be made through either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A response to this action should be mailed to:
Mail Stop _____
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450,
Or faxed to:
PTO Central Fax: 571-273-8300

F. VANAMAN
Primary Examiner
Art Unit 3618

10/26/06